REMARKS

Claims 1 and 3-6 are pending. No new matter has been added by way of the present amendment. For instance, the specification and abstract of the disclosure have been amended to correct some minor typographical errors. Also, new claim 6 has been added as supported by the present specification at page 7, lines 13-17. Accordingly, no new matter has been added.

Clarification of pending claims

At the time of filing the present application, claims 1 and 3-5 were pending. However, the Examiner has rejected claims 1-5 in the outstanding Office Action. Applicants wish to clarify the numbering and content of the pending claims.

Applicants remind the Office that on November 29, 2004, concurrent with the filing of the present application, the PTO was requested to use the amended sheets/claims attached to the correspondence (which correspond to Article 19 amendments or to claims attached to the International Preliminary Examination Report (Article 34)) during prosecution of the above-identified national phase PCT application. It is these claims upon which action on the merits was requested and should have been rendered.

To aid the Examiner, Applicants have attached a replacement copy of the correspondence mentioned above along with a date-stamped postcard indicating receipt by the USPTO.

In view of the following remarks, Applicants respectfully request that the Examiner withdraw all rejections and allow the currently pending claims.

Issues under 35 U.S.C. § 102(b)

The Examiner has rejected claims 1-5 under 35 U.S.C. § 102(b) as being anticipated by Hait et al., USP 6,365,702 (hereinafter referred to as Hait '702). Applicants respectfully traverse.

The Examiner has pointed out that the Hait '702 reference relates to a method for preparing a polyestercarbonate copolymer using solid state polymerization (SSP). Likewise, the present invention relates to a method of synthesizing polycarbonate by SSP. However, the similarities between the present invention and Hait '702 end at this point because these methods employ totally different process steps and starting materials. To synthesize polycarbonate with a high molecular weight (Mw), the present invention employs at least four steps, including a transesterification step, a Mw increasing step, a crystallinity increasing step, and a SSP step under different parameters. However, the method of Hait '702 is conducted by transesterification and SSP, simultaneously. The present claims, for instance, claim 1, is drafted such that each step is sequential, thus, the process of Hait '702 is quite distinct.

More specifically, the method of preparing the high molecular weight crystalline polycarbonate according to the present invention comprises at least the four steps of:

(a) conducting transesterification of dialkyl(aryl)carbonate and aromatic hydroxyl compound to prepare an amorphous polycarbonate prepolymer,

(b) increasing Mw of the amorphous polycarbonate prepolymer to prepare a middle Mw amorphous polycarbonate,

(c) increasing crystallinity of the middle Mw amorphous polycarbonate to prepare semi-crystalline polycarbonate, and

(d) conducting SSP using the semi-crystalline polycarbonate.

On the contrary, the polycarbonate of Hait '702 is synthesized by (a) mixing with partially crystalline bisphenol A polycarbonate oligomer and hydroxyl acids, and (b) conducting transesterification and SSP of the obtained mixture.

Accordingly, the starting materials and final products of the transesterification step of the present invention are different, and thus the starting material for the SSP is different from those of Hait '702. As an example of the present invention, bisphenol A and a carbonate compound are used in step (a) as starting materials for the transesterification step, and the repeating unit of the polycarbonate comprises the condensate of bisphenol A and the carbonate. However, in Hait '702, as it conducts transesterification between semi-crystalline bisphenol A polycarbonate oligomer and additional structural units including hydroxyl acids, the repeating unit of Hait '702 includes the condensate of the polycarbonate oligomer and hydroxyl acids. This means that, through using such reactants, the repeating unit of polycarbonate is distinct between the present invention and Hait '702.

In addition, the starting material for SSP of the present invention is the semi-crystalline polycarbonate with a weight-average Mw of 20,000 to 30,000, so as to produce a final product having weight-average Mw of 35,000 to 200,000. Hait '702 describes a polycarbonate having weight-average Mw of 15,000 to 40,000, and more specifically a polycarbonate having weight-average Mw of 32,000 in working example 4. However, the object of the present invention is to

resolve the problem that polycarbonate having at most 31,000 g/mol was obtained in the SSP process of the prior art, which is described in paragraph [0007] of the present application in detail. Therefore, the process of Hait '702 still has the problem as mentioned in the background art of the present application.

For all of the reasons explained above, Applicants submit that significant patentable distinctions exist between the present invention and Hait '702. Accordingly, there can exist no anticipation. The Examiner is therefore respectfully requested to withdraw the above rejection and allow the currently pending claims.

If the Examiner has any questions or comments, please contact Craig A. McRobbie, Reg. No. 42,874 at the Offices of Birch, Stewart, Kolasch & Birch, LLP at the number listed below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §1.16 or 1.14; particularly, extension of time fees.

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Respectfully submitted,

By _____

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Attachment: Letter of November 29, 2004,
with date stamped postcard